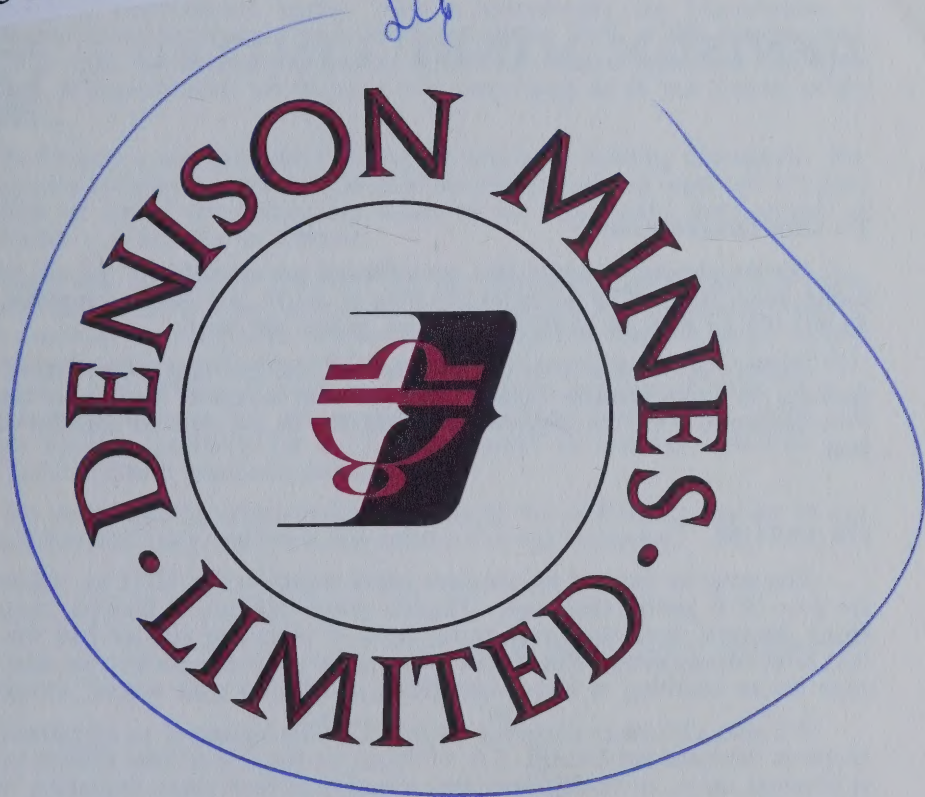


AR38

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INTERIM REPORT

1974

DENISON MINES LIMITED



TO OUR SHAREHOLDERS:

We are pleased to report that consolidated net earnings for the six months ended June 30th, 1974 were \$6,252,000 or \$1.37 per share compared with \$3,942,000 or 86¢ per share in the same period last year.

Higher net revenue from uranium and oil and gas operations, record high earnings by Lake Ontario Cement Limited and increased investment revenue were responsible for the improved performance in the first six months of this year.

URANIUM

The surge in demand for uranium which began in late 1972 for delivery in the post-1978 period continues. Electric power utilities in Europe, Asia and North America have awakened to the need of obtaining nuclear fuel for their long term requirements. For deliveries in earlier years the market has also been quite active resulting in discussions being carried on with several companies.

We were pleased to announce on July 15th the signing of an agreement with Empresa Nacional del Uranio, S.A. of Spain for the sale of four million pounds of uranium oxide, to be delivered over a period of four years, beginning in late 1974. The agreement provides for a substantial advance payment to your Company. Application is being made for the appropriate governmental approvals in Spain and Canada.

The contract for the sale of 40,000,000 pounds of uranium concentrates for delivery during the period 1984 to 1993 to The Tokyo Electric Power Company, previously announced, was signed in late March and submitted to Canadian government authorities for approval. An important provision of this contract is the \$10,000,000 advance payment due on approval by the respective government agencies.

Strong demand for uranium for domestic and international markets has accelerated planning for increasing the production rate at the Denison mine beyond that possible with the initial expansion stage now under construction. Uranium prices have strengthened in recent months and the outlook is for further improvement. The merits of uranium as an economical fuel have been resoundingly confirmed by events of 1973-74 and it is now more clear than ever that the nuclear alternative will yield the lowest overall electric power production cost.

MINING

Plant expansion at Elliot Lake to increase the uranium mill processing rate from 4300 tons to over 7100 tons daily is progressing satisfactorily and the additional production facilities will be in operation in mid-1975.

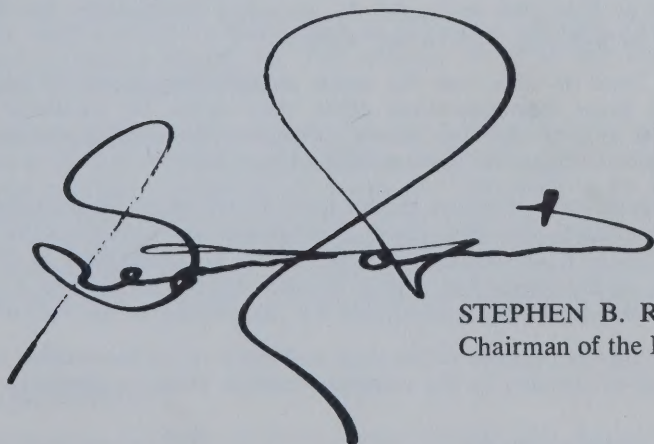
\$4.00 below international levels. Almost immediately the Government of Alberta increased its royalty rate to eliminate almost 70% of this increase and, soon after that, the federal government introduced budget provisions the effect of which, if implemented, would be to take away from us all but 8 cents of the increase.

In Ontario a new graduated mining tax rate scale is being introduced. For the uranium industry in particular the new tax structure unless modified will have the effect of almost eliminating any incentive for exploration, development or investment in processing in Ontario.

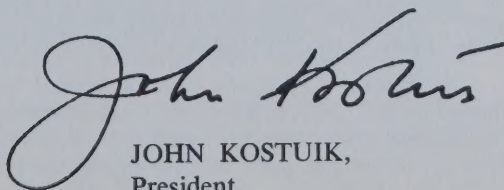
High risk capital, so necessary for the continuing development of these essential industries, is losing its confidence in Canada and is turning away to other countries until the issue is resolved. The natural resource sector cannot survive under such oppressive legislation and the Canadian economy and Canadian people will suffer as a result of reduced activity and employment. It is of paramount importance that this problem be resolved in a manner which will provide positive incentives for the healthy growth of resource industries and for Canada's future economic stability.

We would like to acknowledge with thanks the continuing support of our shareholders and their interest in the activities of the Company.

On behalf of the Board of Directors,

A large, stylized handwritten signature in black ink, consisting of several loops and a long horizontal stroke.

STEPHEN B. ROMAN,
Chairman of the Board.

A handwritten signature in black ink, appearing to read 'John Kostuik' with a large initial 'J'.

JOHN KOSTUIK,
President.

Toronto, Ontario,
July 19, 1974.

In April of this year your Company, in common with others in the Canadian mining industry, volunteered a mid contract increase to employees in the bargaining units at the Denison mine which amounted to 15¢ an hour. Regrettably, during this period, there was an illegal walkout resulting in 12 days of lost production at the mine.

OIL AND GAS

This division increased its exploration efforts substantially with active programs in the Mediterranean Sea near Spain, in the U.S.A. and in Alberta.

A seismic program on the five jointly held offshore Spanish permits was completed in May. Preliminary interpretation of the data is expected to be available shortly.

In the North Sea, two wells are being drilled by other groups on Blocks adjacent to Block 3/7 in which Denison has a 10% interest. Both wells are considered to be part of a new field which is called the Ninian Field and part of Block 3/7 should be within the field limits.

Your Company has a 20% working interest in the Farrell Lake project which comprises an 11,469 acre Permit in Alberta. One well has been drilled and tested gas at a rate of 4.2 thousand Mcf a day. A productive trend of at least 8 miles is indicated and a further well is planned.

The drilling program undertaken in the States of North Dakota, Montana, Utah and Louisiana during the first quarter of 1974 has been discontinued because of unfavourable results.

In Alberta, Denison participated in the drilling of three oil wells and four dry holes at Edson and Gilby. In addition, seven tracts of acreage were acquired at government sales. Three of the tracts are considered to be semi-proven and development wells will be drilled this year. The remainder of the tracts are on trend with promising new oil discoveries. A development program of as many as five wells is planned on a new farm-out in the Virginia Hills area, and a similar program is planned on leases in the Swan Hills field.

EXPLORATION

Exploration continues in Nova Scotia for zinc-lead deposits in the Windsor Basin.

Exploration for uranium is being carried out in the Johan Beetz area on the north shore of the St. Lawrence River opposite Anticosti Island. Two permits in the Carrot River area of Saskatchewan are also being investigated.

An exploration program has commenced on a porphyry copper prospect in the Philippines and diamond drilling will be underway shortly. An exploration and development agreement covering this project has been entered into with Argonaut Mineral Exploration Inc., of the Philippines. A number of other opportunities in the Philippines are being evaluated and additional activities are projected for this area.

COAL

An additional coal property has been acquired near our present Rock Lake deposit in Alberta. The new property, known as Wildhay, consisting of about 26,500 acres in two blocks, is a continuation of the Rock Lake coal trend and is about 20 miles from the rail head. Excellent logistics and indications of the existence of high-quality coking coal deposits make this a most interesting prospect. An exploration program has been developed by us and approved by the Alberta Government.

Exploration of the Babcock coal deposit in the Quintette area of British Columbia will be completed during the 1974 season after which marketing and final feasibility studies will be initiated.

Strong interest is being shown by domestic and international companies in a number of our coal properties and discussions are in progress regarding joint exploration and development projects.

LAKE ONTARIO CEMENT LIMITED

Consolidated sales and net earnings for the first six months of the year 1974 were again records for Lake Ontario Cement Limited, a 54% owned subsidiary. Consolidated sales totalled \$17,228,000, a 21% increase over the 1973 first half sales level. Consolidated net earnings before an extraordinary item amounted to \$791,000 (18.4¢ per share) compared to \$713,000 (16.7¢ per share) for the same period in 1973. Additionally, an extraordinary gain on a sale of land of \$485,000 increased the company profitability for the six-month period to \$1,276,000 (29.7¢ per share).

The record level of sales was the main contributing factor to increased profits as selling price increases were more than offset by increased costs, particularly in the area of fuel and power. Recent selling price increases are expected to improve margins in the last half of the year.

The company is continuing on its program of enlarging its manufacturing and distribution facilities. The first phase of an expansion to double the Picton cement plant's capacity was completed in 1973 and is now operating as planned. The second stage of this expansion, which involves the installation of a 4-stage preheater kiln, is underway and is scheduled for completion in the Fall of 1975.

The outlook for the balance of the year continues to be favourable and the long-term demand for cement in the company market areas is excellent.

TAXES AND ROYALTIES

Recently enacted and proposed legislation by Federal and Provincial Governments and inter-governmental confrontation continue to damage investment initiative and confidence in our Canadian natural resource industry.

In British Columbia new proposed royalties on mineral resources will undoubtedly have a serious effect on resource development investment decisions. The precise effect this may have on our coal projects in the Province cannot be determined on the basis of information available to us at this time.

In April Canadian producers were allowed to increase crude oil prices by \$2.65 a barrel. This was a most welcome move even though it still left the price

DENISON MINES LIMITED

Summary of Consolidated Earnings

Six Months Ended June 30
1974 1973

Net earnings before items shown below	\$10,295,000	\$ 8,300,000
Revenue from investments	1,621,000	336,000
	<u>11,916,000</u>	<u>8,636,000</u>
Depreciation, depletion and amortization	2,307,000	2,161,000
Interest on long-term debt	571,000	540,000
Interest on prior years' income taxes under appeal	25,000	90,000
	<u>2,903,000</u>	<u>2,791,000</u>
Net earnings before income taxes and minority interest	9,013,000	5,845,000
Income taxes	2,170,000	1,575,000
	<u>6,843,000</u>	<u>4,270,000</u>
Minority interest in consolidated net earnings of Lake Ontario Cement Limited	591,000	328,000
Net earnings for the period	<u>\$ 6,252,000</u>	<u>\$ 3,942,000</u>
Net earnings per share	<u>\$ 1.37</u>	<u>\$ 0.86</u>

Consolidated Statement of Source and Application of Funds

SOURCE OF FUNDS

Current operations	\$ 8,795,000	\$ 5,968,000
Advances on concentrate sales contracts	1,188,000	1,410,000
Issue of debenture of Lake Ontario Cement Limited — less expense	15,463,000	—
	<u>25,446,000</u>	<u>7,378,000</u>

APPLICATION OF FUNDS

Additions to property, plant and equipment — net	2,736,000	4,142,000
Long-term investments	1,591,000	(170,000)
Concentrate inventories	1,061,000	1,198,000
Repayment of Lake Ontario Cement Limited debenture	9,917,000	—
Reduction in long-term debt	104,000	687,000
Dividends to minority shareholders of Lake Ontario Cement Limited	120,000	195,000
Dividends	3,198,000	3,198,000
	<u>18,727,000</u>	<u>9,250,000</u>
Increase (decrease) in working capital	<u>\$ 6,719,000</u>	<u>\$ (1,872,000)</u>

Notes

1. Gross operating revenue of the Company for the six months ended June 30, 1974 increased by 23.5% from the corresponding period in 1973. The proportion of this percentage change attributable to the Uranium Division and to the Oil and Gas Division was 82.2% and 17.8% respectively. Consolidated sales of Lake Ontario Cement Limited were \$17,228,000 for the six months ended June 30, 1974 and \$14,240,000 for the comparable period in 1973.
2. The Company adopted tax allocation accounting as of January 1, 1971 with the exception of oil and gas intangibles. In accordance with the Canadian Provincial Securities Administrators' National Policy 27, the Company in 1974 has retroactively to January 1, 1971 adopted tax allocation accounting in respect of oil and gas intangibles. Since deferred taxes in this connection at June 30, 1974 and 1973 approximated the amount unrecorded as at January 1, 1971, this change in accounting policy has no material effect upon the net earnings reported above.

AR38

URANIUM INDUSTRY IN CANADA

by JOHN KOSTUIK

President, Denison Mines Limited

Presented at

ANNUAL GENERAL MEETING

of

DENISON MINES LIMITED

Toronto, Ontario

February 8th, 1974.

URANIUM INDUSTRY IN CANADA

In many ways, the uranium industry is a unique segment of Canada's energy sector. Contrary to fossil fuels, wherein the net exports in Canada are relatively small, uranium production far exceeds our domestic requirements and markets are almost entirely export. Transportation costs, so crucial to the economics of oil, gas and coal, are an insignificant factor in the delivered cost of uranium. Unlike other energy fuels, uranium production capacity is in excess and prices have been depressed. Exploration activity for uranium in Canada is unique in that it is almost non-existent. Ownership, production and marketing are all under the strictest government controls. More than any other segment of the energy resource industry, the problem facing the uranium industry is not so much how to supply our own needs but how to best take advantage of future export opportunities.

RESERVES

Reserves of uranium in Canada are so extensive relative to its future domestic needs that security of supply is more a matter of economics than availability. Of the 5,000 tons of uranium oxide produced annually in Canada, only about 550 tons are currently needed for domestic use. Reserves of uranium oxide in Canada are so extensive in relation to domestic needs that adequacy of supply is not a problem. Reasonably assured reserves of 400,000 tons of uranium oxide together with estimated additional reserves in excess of 500,000 tons are nine times greater than the estimated domestic requirement of 100,000 tons to the year 2000.

MARKETS

The market for uranium is international in scope with a present excess in production capacity, causing a supply/demand imbalance. Since 1966, sales contracts awarded to Canadian producers have totalled approximately 74,500 tons U_3O_8 of which only about 10% were to Canada, 47% to Japan and the remainder to Europe. Canadian requirements at about 550 tons per year are expected to increase to over 1,500 tons by 1980. The American market, which accounts for about half the free world demand, is presently closed to foreign producers but this embargo is expected to be lifted commencing in 1977 at a 10% rate and lifted completely in 1984.

Construction delays and problems with environmental regulations notwithstanding, nuclear power will undoubtedly be the preferred alternative for satisfying electrical needs of the future. A recent report on power generation alternatives in the 1980's concludes that nuclear power costs will average 5 mills/kwh less than coal, nuclear's nearest competitor. The comparative capital and power costs predicted for a 1150 Mw plant constructed in 1981 are given below:

	<u>Capital Costs</u>	<u>Power Costs</u>
Nuclear	\$702/kw	20 mills/kwh
Coal	\$602/kw	23 mills/kwh
Oil	\$502/kw	23 mills/kwh

Over fifteen years of operation, the relative advantage in power costs of nuclear over coal will increase at least from 3 mills to 7 mills per kwh.

The ability of nuclear plants to deliver economic electrical power has been a significant factor in the decisions of many utilities to go nuclear. A clear reflection of the utilities' satisfaction with nuclear power is the annual increase in the number of new reactors. From 5 reactors for 2410 Mwe Ontario Hydro has elected to proceed with 12 - 13 further reactors to a total of 9250 Mwe and then to 28,600 Mwe by 1992. A total of 215 commitments as of January 1974 have been made in the U.S. with 42 plants with operating licenses, 56 plants with construction permits, 101 plants on order and 16 letter of intent options for a total of 206,773 Mwe.

The next generation of nuclear power reactors commonly known as "fast breeders", should reach commercial operation by 1986. This development will increase the fuel utilization from about 1% (in existing reactors) to 70%. By the year 2000, over 30% of the world's nuclear power capacity will be breeder reactors. The next century should see the development of the more advanced "fusion" reactors but as yet, the technology in this area is in its embryonic stages.

As the economics of the energy crisis forces greater utilization of nuclear power, the annual demand for uranium will rise dramatically from about 22,000 tons today to almost 80,000 tons by 1980. A sellers' market will develop for 1980 and beyond. By 1990, over 50%

of the world's electrical power is predicted to be nuclear sourced and the cumulative free world demand at that time will be 1.7 million tons U_3O_8 . At the turn of the century, the cumulative total will reach almost 5 million tons U_3O_8 . The estimated and potential reserves of present producing areas are about 3.5 million tons U_3O_8 at prices \$15 per pound. In view of the shortfall, massive exploration efforts on a world scale will be required to satisfy projected demand and ensure a sound base of reserves for the next century. In the United States, alone, this would infer an average discovery rate of some 60,000 tons U_3O_8 per year or about twice that achieved in the booming 1950's.

PRICES

In the last few years, market prices obtained for Canadian uranium have been depressed, barely keeping pace with rising costs, but as the long-awaited uranium boom matures, substantially higher prices can be expected. However, anticipated increases should not materially affect the economics of nuclear power as the cost of uranium is a very minor component in the cost of electrical power produced.

Taking the production of Canadian nuclear power as an example, Uranium accounts for only about 2.5% of the CANDU energy costs. Therefore, assuming that a "reasonable price" to pay for Canadian uranium is based on the final cost to the Canadian consumer, prices have ample upward potential. For instance, if the price of uranium doubled, the effect on final electrical energy costs would be an increase of less than 3%. In comparison,

in a typical fossil-fuel power installation, the doubling of fuel power installation, the doubling of fuel prices would increase total electrical energy costs by about 50%.

TRANSPORTATION

Transportation is not a significant problem in the uranium industry. Few producers in the world are at a competitive disadvantage owing to their distance from markets. Relative to fossil fuels, uranium has a distinct advantage in terms of value per pound transported. For example, a standard barrel filled with uranium oxide would be worth over \$6,000 at \$15 per lb. oxide, yet filled with oil, the value of the same barrel would be about \$10 - \$15 now.

PRODUCTION

The state of uranium operations in Canada today reflects the worldwide surplus of U_3O_8 and the currently depressed prices. Production has levelled off at about 5,000 tons per year and is about two-thirds below its short term capability. Reasonably assured reserves at up to \$15.00 per pound are about 400,000 tons, of which less than one-third are committed to forward contracts. By 1976, production should exceed 8,500 tons per year when a new producer will be on stream and others in the industry will be operating at or near to rated capacity.

PROBLEMS AND ISSUES

The key question facing the industry as a whole is what happens beyond 1976.

Producers, including two potential, in Canada could expand production capacity to 15,000 tons per year by 1980 at relatively low capital costs, per additional pound produced, compared to new producers. There is, however, the overriding question of exactly when the demand/supply curves for uranium will cross, and most producers will be expanding production only under the protective umbrella of long term contracts. The crossover varies - one study indicates a 1978 crossover another in 1980-1981.

Even though the chaotic marketing situation of the past is ended and prices are trending upwards, costs are increasing also and over the next few years, the industry expects to generate offsetting technological improvements in order to remain internationally competitive.

Major decisions will have to be made as to how to best capitalize on the export markets ten to fifteen years into the future. Canadian producers will be facing the dilemma of whether or not to take the risk of losing their share of markets now being committed into the mid 1980's and beyond to 1995, by delaying contract negotiations until the future price trends become clearer.

If these uncertainties in uranium markets cause a delay in the expansion of production capacity and if profits do not begin to provide a return to justify the risks of exploration; there is a real danger that Canada's uranium industry will not have the future capability to match the increasing growth in demand.

The lead time between the discovery of an ore body and the

placing of that ore body into production in about seven years. This means that exploration programmes should be in progress now to delineate new reserves to fulfill long term domestic and future export guarantees. With the exception of Gulf Minerals' Rabbit Lake Mine in production in 1975, and with Mokta (Canada) and Agnew Lake in the offing, there are no new potential producers on the horizon.

Exploration in the uranium industry today is practically non-existent owing to the harsh treatment accorded the industry by the Federal Government. This treatment and the tax situation in the mining industry have driven capital to more profitable industries and to other countries. Moreover, Government regulations regarding foreign ownership in the industry seriously restrict those who do qualify as sources of capital. Whereas in the past, Canadian companies could take on foreign customers as joint-venture partners to reduce the risk in exploration, this option is no longer open in the uranium industry. The unpredictability of government actions regarding controls in the industry also acts as a deterrent to investors.

With our larger reserves, one might question the need for exploration to find more. In fact, if we care to leave the ore "fallow" in the ground, there is no apparent problem of availability of supply for Canadian uses. There is, however, the tragedy of lost opportunity. Without exploration, the industry will not grow. Canada will not reap her share of future market opportunities and the associated income, foreign exchange, government tax revenues and employment opportunities, Canada would lose the spin-off benefits brought by exploration and mine development.

By encouraging exploration and growth in the uranium industry, Canada would create employment and promote development in frontier areas using the new mine as an economic base. In this regard, it is important to remember that other minerals will be found as a result of the expanded uranium exploration. Canada has great areas which are geologically favourable for uranium and we have the geological expertise to find more reserves. The lacking commodity is risk capital.

RECOMMENDED ACTION

1. New Federal Government initiatives are required immediately if Canadians are going to benefit fully from a viable and growing uranium industry.
 - Foreign ownership restrictions in the uranium industry must be liberalized and clearly defined by legislation to encourage risk capital to invest in new exploration and to broaden the possible sources of such capital.
 - Revisions are required to Canadian tax legislation as applied to the mining industry, of which uranium producers are a part, to render it more internationally competitive. Without positive changes in the tax situation, the return on risk capital will simply not be sufficient to swing investors' tax dollars from other industries and other countries.

2. Marketing should be maintained on an international basis. The Canadian national interest will be best served if the industry producing uranium is encouraged to develop markets abroad at a price structure fair to both producers and consumers but sufficiently high to encourage exploration to fulfill guarantees of long-term supply. Canadian utilities should follow the practice of their international counterparts and secure their medium-term source of supply by long-term contracts.

3. Canadian producers should consider the economics of marketing their uranium in a more highly processed form to increase the employment, balance of payment, and spin-off benefits accruing to Canadians as a result of the sale.

- One conversion plant exists in Canada, owned by Eldorado Nuclear, a crown corporation. Other, private financed facilities should be encouraged to be built to produce UF_6 as required for feedstock for uranium enrichment. However, encouragement of further processing in Canada must be responsible and in consideration of the needs and preferences of its customers. *answer to develop intent in conversion plant*
- Under certain circumstances, establishment of an enrichment plant in Canada could bring positive benefits to our economy and would further capitalize on the needs of the export market.

Realization of this objective would depend on the willingness of the U.S.A.E.C. to part with its advanced diffusion technology or alternatively on the speed of development of the European gas centrifuge technology.

The benefits of a diffusion plant would clearly have to be weighed against the economic penalties or lost opportunities which could result from tying up so much capital and such a large block of power.

Condition on favourable economics, enrichment plants could be located in frontier areas where power demands are minimal and where the hydro-electric potential is yet untapped. The benefits to Canada would be usage of otherwise wasted water power, increasing employment and establishing an economic base in frontier areas, and through the sales of the product, aiding the balance of payments.

IMPLICATIONS

1. Left to market forces, and a dramatic increase in demand as power plants come on stream in the late 1970's, uranium prices will rise steadily to as much as \$1.5/lb. U_3O_8 by the early 1980's. Under the incentive of this rise, total Canadian production could reach 15,000 tons by 1981, of which roughly 85% would be slated for export, a \$400 to \$500 million contribution to our balance of payments. Security of supply

to domestic utilities would be assured by forward contracts based on international prices and by an accelerated exploration programme. Should prices reach the \$15 figure by the early 1980's, the relative impact on the individual Canadian consumer would be an increase in power costs of about 2%.

2. Assuming improved tax incentives, and a more favourable climate for at least some degree of foreign participation in new exploration, the program would begin to bear fruit in 1981, in time to capitalize on the pre-breeder surge in demand and ensure our long term capability as a supplier.

February 8th, 1974.

DENISON MINES LIMITED

ANNUAL SHAREHOLDERS MEETING

Address By

STEPHEN B. ROMAN

Chairman of the Board and Chief Executive Officer

February 8, 1974

Toronto, Ontario

Meeting Held At:

The Royal York Hotel

Modern civilization has developed because man harnessed other forces to add to the power of his own muscle.

First he put animals to work for him and learned to make the wind propel his boats.

Then he used the energy of flowing streams to turn the wheels of the mills to grind his flour.

For centuries this was the limit of man's utilization of energy.

Not until the invention of the steam engine did a new source of power become available.

This was the dawning of the industrial revolution --- and it was then that man struck a magic bargain for power far beyond anything that his own muscle could provide.

Since that time man has developed many new sources of power, and many ways to transmit that energy to the machines which assist him in his work and creativities in our modern society.

Energy is the magical key to keeping a country growing. Only the continuous flow of energy to our homes and factories can maintain and improve the quality of our life. Now that we, for the first time in human history are facing the unique phenomenon of an energy shortage -- can we, as rational human beings, realize what is happening?

Can we learn to deal with it --- and make sure it does not happen in the future?

To put the problem in perspective let's examine how and why it developed.

We must begin with population growth --- combined with the rate at which our present resources are being exploited --- and study the plans we have -- or have not -- to keep the energy supply coming, uninterrupted.

The world population explosion led to many studies of our natural resource reserves and our projected consumption.

Energy, in fact, is a natural resource. Since many nations have been richly endowed with either a hydro or fossil base, or both, the effect of this low cost base on the economy of the country is often taken for granted, and its importance under-estimated. It is only in those countries where energy costs are high, or where the limits of their resource base is rapidly being approached, that a true appreciation of the value of low cost power exists.

Examining the history of development of any of the nations of the world confirms that the prime requisite for population growth and yet maintaining improving living standards is cheap, efficient energy. Keep this fact in mind as we look briefly at the relation between world population growth and world energy resources.

For 700 years after the birth of Christ, the population of our planet remained stable. It took another 950 years before it doubled the first time, but only 200 years for it to double the second time, and 100 years later, in 1950, it had doubled again. In 1985 -- 11 years from now -- our population will have doubled again --- and 15 years later, in the year 2000, more than 6 billion people will be competing for survival on this planet.

What effect will this have on the demand for energy --
and what can we do about it?

In 1970, the per capita energy consumption in the
world averaged the equivalent of two tons of coal per year ---
but, in the United States the average was over twelve tons.

The U.S. with only six percent of the world's people
consumes 33% of the world's energy.

Yet, India with two-and-a-half times the American
population, consumes only one-and-a-half percent of our global
energy. Think what this implies!!!!

If the rest of the world were brought up to the American
standard, without allowing for any population growth, the demand
for energy would immediately increase more than six times.

In the last century man has consumed at least half as
much energy as in the preceeding 1850 years.

One half of all the coal ever consumed has been burned
since 1920 --- and half of all the oil and gas ever consumed has
been burned since 1940.

I believe there is no way of curtailing this increasing energy consumption UNLESS we are prepared to deny mankind an improved standard of living.

We must plan, now, for an annual per capita energy demand growth of 3 percent, which is quite conservative.

It simply means that by the year two thousand the annual energy demands of the world will be the equivalent of 30 billion tons of coal --- four times what we consume today.

The problem of supplying such tremendous demands is compounded by the fact that our society has allowed itself to get into the position of being geared to operating on fuels which are in short supply, instead of utilizing fully those which are in abundance.

It is a fact that the world's proven and potential oil and gas reserves are NOT enough to supply our needs to the year 2000 and beyond.

Obviously, if we are to maintain our standard of living, we must establish policy guidelines which will do three things:

FIRST --- promote efficient energy usage.

SECOND -- accelerate the search for more reserves of conventional fuels.

THIRD --- encourage development of entirely new energy sources.

AS FOR POINT ONE:

Common sense should stimulate ways to save rather than waste our precious energies.

Point TWO requires new federal and provincial initiatives IMMEDIATELY, if Canadians, Americans and the rest of the world are going to benefit by finding and developing more resources. In Canada every possible incentive should be written into legislation to ENCOURAGE RISK CAPITAL to explore and develop frontier reserves, and to broaden the present sources of such capital.

Revisions are required to Canadian tax legislation as applied to the Canadian mining industry of which uranium producers are a part, to render the industry more internationally competitive.

The return on private risk capital is simply not sufficient to swing investors' dollars from other industries and other countries.

Marketing should be maintained on an international basis. The Canadian international interest would be best served at present if the industry producing an energy source was encouraged to develop markets fair to both producers and consumers, but sufficiently high as to encourage exploration to fulfill guarantees of long term supply. Canadian utilities should follow the practise of their international counterparts and secure their medium and long term source of supply by LONG TERM CONTRACTS.

Canada's energy industry is, at the moment, suffering from the lack of coherent national guidelines for resource development. Unfortunately we are also caught in the middle of the senseless conflict between Ottawa and the provinces.

Our industry simply cannot survive the "panic button" approach to problem solving which is reflected in recent energy decisions. Our government leaders seem to work in a complete vacuum --- void of any consultation with the industry --- and VOID OF ANY LOGIC OR COMMON SENSE. The tragedy of it all is that many of these politically motivated SNAP DECISIONS are completely contrary to the long term interests of Canada and Canadians.

POINT THREE.----- finding new sources of energy.

Did you know that the conventional nuclear reactors of today utilize barely 1% of the available energy in uranium? In the late 1970's this should increase to about 3% if plutonium recycling is introduced.

However, the next generation of reactors, commonly known as the FAST BREEDERS will increase the fuel utilization to nearly 70%. We expect to begin phasing them into commercial operation by 1990.

By the year 2000 FAST BREEDERS should constitute over 30% of the installed nuclear capacity.

Also, in the exciting future are FUSION REACTORS which would tap the energy released as a result of the fusion of two isotopes. HARNESSING THE ENERGY OF THE SUN AND other natural elements --- THE RESEARCH AND WORK ON THESE NEW APPROACHES MUST BE ACCELERATED.

I believe, as I said in the beginning, that what we are now experiencing has been caused by a simple failure of man to pursue logic and to ignore the stability of long range planning. We, as Canadians, must recognize and comprehend that any disturbances of economic life of the world leads to the tightening of reflexes that control the peace of the world.

Are we to resolve our problems as intelligent human beings, or go down in history as a generation that did not recognize its challenge; and thus, open the gates for evil to flourish.

